



Published in final edited form as:

Can Med Educ J. 2011 ; 2(1): e32–e36.

Developing a program to promote stress resilience and self-care in first-year medical students

Suzanne E. Thomas, PhD, Myra K. Haney, MA, Chris M. Pelic, MD, Darlene Shaw, PhD, and Jeffrey G. Wong, MD

Medical University of South Carolina, Charleston SC

Abstract

Background—Facilitating stress resilience in future physicians is an important role of medical educators and administrators. We developed an extracurricular program and pilot tested the program on first year medical students.

Methods—Presentations on topics related to mental health, help-seeking, and stress resilience were presented (one topic per session). Attendance was voluntary. Attendees were requested to complete anonymous evaluations following each presentation. Primary outcome variables were rates of agreement that the presentation (1) was interesting, (2) provided valuable information, and (3) provided information relevant for the student's future practice as a physician.

Results—Each of the seven topics was attended on average by approximately half of the student body. Evaluations were very positive that presentations were interesting and provided information useful to maintaining balance during medical school (all had $\geq 85\%$ rates of agreement). Evaluations by students were variable (41%-88% rates of agreement) on whether each presented information relevant for future practice.

Conclusions—The results support that first-year medical students value explicit guidance on ways to bolster stress resilience and self-care during medical school. It is important to clarify with each presentation how the information is relevant to their future practice as a physician.

The significant stressors associated with medical school have long been recognized and are attributable to both external factors (extensive work hours, time constraints, exams, conflict between school and other life roles) and internal factors (pressure to perform, competitiveness, perfectionism)⁽¹⁾. While these stressors reflect the reality of becoming a physician, how one copes with them has critical consequences, including depression, substance abuse, and suicide⁽²⁻⁶⁾.

Students often begin their medical education unaware or emotionally unprepared to cope with these challenges. There is increased interest among medical educators and administrators to promote a culture of wellness, professionalism, self-care, and help-seeking in medical students. Instilling self-care habits and teaching students skills to help them maintain life balance has the potential to significantly benefit them both in their current education, as well as in their future practice. The Association of American Medical Colleges

Corresponding author: Dr. Suzanne Thomas, 67 President Street, Box 250861, MUSC, Charleston, SC 29425, Ph 843/792-1533, Fax 843/792-7353, thomass@musc.edu.

Approval was sought and obtained by the university's IRB, and the project was conducted in accordance with the Declaration of Helsinki.

None of the authors have conflicts of interest to disclose

Disclosure of funding: This project was supported in part by funding from the National Institutes of Health, National Institute on Alcohol Abuse and Alcoholism to the Charleston Alcohol Research Center (AA010761)

(AAMC) recognizes the importance of this focus and has called for medical schools to attend to the health and well-being of medical students as one component of improving quality of future medical care⁽⁷⁾. The following brief report describes one medical school's effort to develop, implement, and pilot test a program to achieve this goal.

Method

Faculty, staff, and students in the College of Medicine with an interest in student wellness and mental health were invited to serve on the program development committee. The committee reviewed wellness programs used at other schools⁽⁸⁾, and adopted as its initial effort a series of seminars that addressed seven topics considered by the committee to be especially relevant to our students. The committee identified potential speakers for each topic and strategies to promote attendance; it was decided that attendance be encouraged but not required for this pilot program.

An orientation presentation was given to all first-year medical students during a scheduled class to provide students with rationale for the wellness series. In this 30-minute presentation, the extant literature was summarized about the stress-related problems prevalent in physicians and healthcare students, alerting students to the fact that many of these problems (including depression, burnout, substance abuse, and suicidality) may begin in medical school and persist into practice. This information was provided to garner interest in the wellness program and explain its goal—to help students value the importance of self-care and to provide tips to help bolster resilience and prevent stress-related illness.

Each subsequent presentation in the series was advertised with campus flyers, emails to first year medical students, and was included on their electronic scheduling site. These noon-hour presentations were held during the fall semester, when no other classes were scheduled, and students who attended received a free lunch. At each presentation, students provided anonymous post-presentation evaluations. The primary outcome was rate of agreement to three statements: (1) “The presentation was interesting;” (2) “I learned things I can use to help me maintain balance and wellness while in medical school;” and (3) “The information will be relevant to my future practice.” While both qualitative and quantitative data were collected, only quantitative data are summarized in this report.

Results

Each presentation in the series was attended by approximately 50% of first-year students. Given that participation was voluntary, this rate of attendance is encouraging. Presentations addressed the following topics: (1) understanding stress resilience and stress management, (2) substance abuse, (3) testimonies from former first year medical students about the challenges to mental health they faced, (4) fitting in exercise despite lack of time, (5) debt management and practical financial advice, (6) destigmatizing depression and anxiety, and (7) effective communication skills. Students' evaluations following each showed that all presentations were considered interesting and provided them with information they could use to maintain balance during medical school (all had $\geq 85\%$ rates of agreement). Evaluations were variable (41%-88% rates of agreement) on whether students considered the information relevant for their future practice. A more complete description of each presentation as well as evaluation summaries are shown in the table.

Discussion

As depression, anxiety, substance use disorders, poor sleep habits, and burnout are common problems in medical students, residents, and physicians,^(1-6,9-10) an opportune time to

instill self-care habits is early in their medical education. This affords students the opportunity to practice self-care during stressful challenges, building skills that will benefit them as residents and in practice⁽¹¹⁾. This brief report describes the development and evaluation of a pilot program to promote self-care and wellness in first year medical students.

The topics identified by the wellness committee—especially those that encourage students to recognize and seek help for depression—were chosen because they address common problems in medical students, both from the extant literature and through anecdotal experience at our institution. Members of the wellness committee, comprised of multidisciplinary faculty, staff, and medical students, were key to developing this program. Committee members contributed ideas and insights about the needs of our students in particular and recommended individuals on campus with expertise in these areas who were engaging speakers.

Evaluations were encouraging that the wellness series was considered a valuable addition to students' education. Students found all presentations interesting and most expected that the information they received would help them maintain balance and mental health during medical school. Their assessment of the long-term value of the information varied by topic, and suggests that in future offerings, presenters be explicit about how the topic they are discussing has implications for future practice as a physician.

The program was inexpensive to develop (a total cost of less than \$5,000 USD for the series). The primary expense was providing lunch for students at each presentation to promote attendance. If the program is infused into the curriculum and delivered during classtime, this expense could be avoided. All speakers donated their time to present to students about their area of expertise; their volunteerism was recognized by providing speakers with a summary of the students' evaluations of the presentation, and with a letter of appreciation to their department chair or administrative leader.

Several limitations are inherent in this pilot effort and should be noted. We obtained evaluations only from those students who attended and chose to respond, so results may not reflect the population of first-year students. In addition, the outcomes from this study reflect only the students' self-reported expectation of its value, not its actual value. We sought to measure whether students felt the program was worthwhile before making participation a mandatory element of their education. A cohort study is in progress with a separate group of students to determine whether students who do and do not receive the program differ on outcomes using psychometrically-validated assessments of mental health and wellness over time. This pilot study was conducted to develop the program and to receive students' feedback to determine what, if anything, should be modified before additional studies are conducted to determine efficacy.

Ultimately, the goal is to provide an educational program that enhances students' stress resilience and promotes self-care. This is a feasible and important activity for medical schools, as failing to address mental health and wellness issues in students can result in depression, substance use problems, anxiety, and suicide in promising future physicians. Medical school is an ideal time to encourage students to acquire and practice self-care habits since school provides them the opportunity to do so in a challenging yet relatively nurturing environment.

References

1. Dyrbye LN, Thomas MR, Shanafelt TD. Systematic review of depression, anxiety and other indicators of psychological distress among U.S. and Canadian medical students. *Acad Med.* 2006; 81:354–73. [PubMed: 16565188]
2. Ball S, Bax A. Self-care in medical education: effectiveness of health-habits interventions for first-year medical students. *Acad Med.* 2002; 77(9):911–17. [PubMed: 12228090]
3. Dyrbye LN, Thomas MR, Shanafelt TD. Medical student distress: Causes, consequences, and proposed solutions. *Mayo Clin Proc.* 2005; 80(12):1613–22. [PubMed: 16342655]
4. Dyrbye LN, Thomas MR, Massie S, Power DV, Eacker A, Harper W, Durning S, Moutier C, Szydlo DW, Novotny PJ, Sloan JA, Dhanafelt TD. Burnout and suicidal ideation among U.S. medical students. *Ann Int Med.* 2008; 149:334–41. [PubMed: 18765703]
5. Mangus RS, Hawkins CE, Miller MJ. Tobacco and Alcohol Use Among 1996 Medical School Graduates. *JAMA.* 1998; 280:1192–95. [PubMed: 9777823]
6. Henning K, Ey S, Shaw D. Perfectionism, the imposter phenomenon and psychological adjustments in medical, dental, nursing, and pharmacy students. *Med Educ.* 1998; 32(5):456–69. [PubMed: 10211285]
7. Association of American Medical Colleges. Report of the ad hoc committee of deans. Washington, DC: 2004. Educating doctors to provide high quality medical care: A vision for medical education in the United States.
8. Lee J, Graham AV. Students' perceptions of medical school stress and their evaluation of a wellness elective. *Medical Education.* 2001; 35:652–59. [PubMed: 11437967]
9. Willcock SM, Daly MG, Tennant CC, Allard BJ. Burnout and psychiatric morbidity in new medical graduates. *MJA.* 2004; 181:357–60. [PubMed: 15462649]
10. Schernhammer ES, Colditz GA. Suicide rates among physicians: A quantitative and gender assessment (meta-analysis). *Am J Psychiatry.* 2004; 161:2295–302. [PubMed: 15569903]
11. Estabrook K. Medical student health promotion: The increasing role of medical schools. *Acad Psych.* 2008; 32:65–8.

Table

Summary of the presentations included in the wellness program offered to first year medical students and their evaluations of each

Title	Speaker	Summary	Results: % students agreeing
Stress resilience and stress management	Clinical psychologist with expertise in stress-related disorders	Effects of stress on the brain and body, what it means to be resilient to stressors, and how stress resilience can be bolstered by lifestyle choices. It included practical advice about ways to improve stress resilience and time management skills	Presentation interesting=99% Learned things I can use=90% Relevant to future practice=41%
It's easier than you think to develop a substance use problem	Jointly delivered by an addiction researcher and by a physician faculty member in recovery from addiction	Offered practical information without moralizing. It provided information about alcohol, including how to accurately determine quantity and frequency of drinking (using standard drink units), how to estimate blood alcohol levels, and the genetic and behavioral risk factors for developing alcohol problems (including the use of alcohol to cope with stress). The physician presenter shared his experience of developing addiction (during medical school) and his process of recovery	Presentation interesting=100% Learned things I can use=97% Relevant to future practice=68%
From the front lines: Personal experiences coping in medical school	Jointly delivered by two second-year students	Former first year medical students shared their stories of experiencing depression and anxiety during the 01 year. They shared about their symptoms, how they decided to seek treatment, and how they accessed care at the university's student mental health service. The goal of this presentation was to help students realize that evaluating their own mental health and seeking assistance to protect it is encouraged, and that depression and anxiety are common problems in their professional peers for which effective treatments are available	Presentation interesting=97% Learned things I can use=89% Relevant to future practice=49%
Getting the most from exercise in the least amount of time	Exercise physiologist	This talk was designed to help students better appreciate that exercising is a key element to stress resilience and physical and mental health and that exercise should be included in their schedule. Included tips on ways to fit in daily exercise, as well as examples of types of activities that produce the most benefit in the least amount of time	Due to time constraints, post-lecture evaluations were not collected for this presentation
Debt management and financial advice students can use	Certified financial advisor (not affiliated with the university)	This presentation focused on principles of debt management. The speaker encouraged students that debt accrued for medical school is an investment in oneself, and as such, is one of the safest investments one can make. He shared practical strategies including avoiding building credit card debt, creating and following a monthly budget, and ways to cut monthly expenses. Importantly, he encouraged students that there are controllable factors that can minimize financial stress	Presentation interesting=97% Learned things I can use=95% Relevant to future practice=49%
Destigmatizing depression and other mental health issues	Presented by Associate Dean of Students (psychiatrist) and a clinical psychologist from student mental health services	This presentation was offered to help students understand that psychiatric diagnoses are both prevalent and treatable in medical students, and that help-seeking does not reflect weakness but rather a commitment to protect one's mental health and quality of life. Speakers encouraged students to realize that in practicing self-care, including recognizing and receiving treatment for depression, anxiety, substance abuse, and other problems, they will not only have improved quality of life, but will also be better able to serve their patients in the future. Speakers provided practical, step-by-step procedures for how to access counseling services on campus	Presentation interesting=100% Learned things I can use=99% Relevant to future practice=52%
Communicating effectively to develop and keep good relationships	Psychiatrist with expertise in communications	This presentation focused on ways to handle conflicts with others effectively, evaluating verbal and non-verbal cues during interpersonal interactions, and ways to help ensure that interactions don't escalate to be counterproductive. The speaker shared her own experiences and "lessons learned" in handling conflicts with staff members and other professionals on the treatment team, and she discussed how the skills she shared generalize to fostering healthy personal relationships	Presentation interesting=100% Learned things I can use=100% Relevant to future practice=88%